

IN THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) Method for taking up a first medium, which is present in a first phase, into a capillary device, comprising:

dipping ~~in which the capillary device is dipped~~ into the first medium; and

taking ~~in which the first medium is taken up~~ into the capillary device by

means of a reduced pressure which is produced in the capillary device,;

controlling ~~wherein the reduced pressure at the end of the capillary device~~

~~which is dipped into the first medium is controlled~~ when taking up the first medium

in such a way that it is less than a critical pressure wherein the critical pressure in

the capillary device is determined according to the following rule:

$$\underline{P = 2 \cdot \frac{S}{r}}$$

where

S denotes the surface tension which is produced by the first medium in the

capillary device when the first medium has been taken up fully by the capillary

device, and

r denotes the radius of a capillary device with a circular base;

exerting the controlled reduced pressure, ~~at whose exertion~~ in the capillary

device, wherein the reduced pressure is less than the critical pressure such that a

surface tension produced by the first medium, or by a second medium in the

capillary device when the first medium has been taken up fully by the capillary

device, would be overcome so that the second medium which is present in a

second phase which is different from the first phase, would be taken up into the capillary device.

~~so that after fully taking up the first medium in the capillary device by the surface tension caused by the first medium or a second medium at the end of the capillary device which is dipped into the first medium, a taking up of the second medium is prevented~~

2. (Previously presented) Method according to Claim 1, in which a pipette is used as the capillary device.

3. (Cancelled)

4. (Currently amended) Method according to one of Claims 1 ~~to~~ or 2-3, in which a liquid is used as the first medium and a gas is used as the second medium.

5. (Currently amended) Method according to one of Claims 1 ~~to~~ or 2-3, in which a gas is used as the first medium and a liquid is used as the second medium.

6. (Currently amended) Apparatus for taking up a first medium, which is present in a first phase, into a capillary device, comprising:

the capillary device for taking up the first medium;

a pump, coupled to the capillary device, for producing a reduced pressure in the capillary device; and

a pump controller for controlling the reduced pressure produced in the capillary device,

in which the pump controller is designed in such a way that the reduced pressure when dipping into the first medium is controlled in such a way that it is

less than a critical reduced pressure such that, if it is exerted in the capillary device, a surface tension which is produced by the first medium, or by a second medium in the capillary device when the first medium has been taken up fully by the capillary device, would be overcome so that a second medium which is present in a second phase which is different from the first phase, would be taken up into the capillary device, ~~so that after fully taking up the first medium in the capillary device by the surface tension caused by the first medium or a second medium at the end of the capillary device which is dipped into the first medium, a taking up of the second medium is prevented, and~~

wherein the critical pressure in the capillary device is determined according to the following rule:

$$P = 2 \cdot \frac{S}{r}$$

where

S denotes the surface tension which is produced by the first medium in the capillary device when the first medium has been taken up fully by the capillary device, and

r denotes the radius of a capillary device with a circular base.

7. (Previously presented) Apparatus according to Claim 6, having an analysis chip for analyzing the first medium taken up into the capillary device.

8. (Previously presented) Apparatus according to Claim 7, in which the surface of at least a part of the analysis chip, which surface comes into contact with the

first medium, has biological material for binding the molecules contained in the first medium.

9. (Cancelled)

10. (Cancelled)

11. (Currently amended) Apparatus according to one of Claims 6 to 8, ~~40~~ in which the first medium is a liquid and the second medium is a gas.

12. (Currently amended) Apparatus according to one of Claims 6 to 8, ~~40~~ in which the first medium is a gas and the second medium is a liquid.

13. (Currently amended) Apparatus according to one of Claims 6 to ~~40~~8, in which the capillary device is a porous plate having a plurality of channels, the reduced pressure being in each case produced in one channel.

14. (Currently amended) Apparatus according to one of Claims 6 to ~~40~~8, in which the capillary device is a pipette.